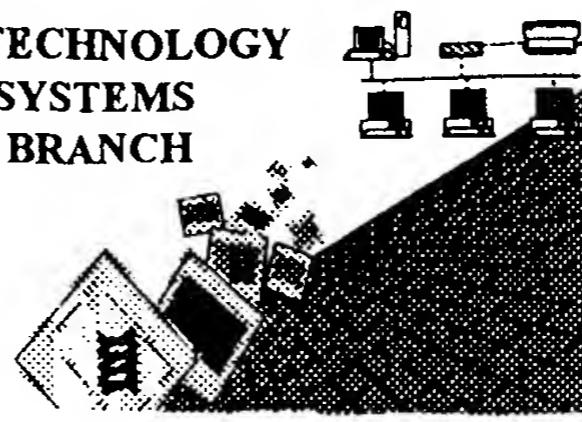


0400

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/090,182
Source: OIPE
Date Processed by STIC: 3/27/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

INPUT SET: S36813.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

SEQUENCE LISTING

(1) General Information:

(i) APPLICANT: Abrams, Mark A.
Bauer, S. C.
Braford-Goldber
Caparon, Maire
Easton, Alan M.
Klein, Barbara
McKearn, John E.
Olins, Peter O.
Paik, Kumnan
Thomas, John W.

(ii) TITLE OF INVENTION: Methods of Ex-vivo Expansion of Hematopoietic Cells (US)

(iii) NUMBER OF SEQUENCES: 415

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: S. Christopher
Corporate Partner

(B) STREET: 800 N. Lindbergh Blvd.

(C) CITY: St. Louis

(D) STATE: Missouri

(E) COUNTRY: USA

(F) ZIP: 63167

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER:
- (B) FILING DATE: 04-MAR-2002
- (C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 08/764,114
(B) FILING DATE: 09-DEC-1996

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 07/981,044

RAW SEQUENCE LISTING
PATENT APPLICATION US/10/090,182DATE: 03/27/2002
TIME: 02:56:28

INPUT SET: S36813.raw

46 (B) FILING DATE: 24-NOV-1992
47
48 (vii) PRIOR APPLICATION DATA:
49 (A) APPLICATION NUMBER: PCT/US93/11197
50 (B) FILING DATE: 22-NOV-1993
51
52 (vii) PRIOR APPLICATION DATA:
53 (A) APPLICATION NUMBER: 08/411,795
54 (B) FILING DATE: 04-JUN-1995
55
56 (viii) ATTORNEY/AGENT INFORMATION:
57 (A) NAME: S. Christopher Bauer
58 (B) REGISTRATION NUMBER: 42,305
59 (C) REFERENCE/DOCKET NUMBER: C2713/12
60
61 (ix) TELECOMMUNICATION INFORMATION:
62 (A) TELEPHONE: (636) 737-6257
63 (B) TELEFAX: (736) 737-6257
64

ERRORED SEQUENCES FOLLOW:

2090 2. INFORMATION FOR SEQ ID NC:18:
2100
2101 (i) SEQUENCE CHARACTERISTICS:
2102 (A) LENGTH: 133 amino acids
2103 (B) TYPE: amino acid
2104 (D) TOPOLOGY: linear
2105
2106 (ii) MOLECULE TYPE: peptide
2107
2108
2109 (ix) FEATURE:
2110 (A) NAME/KEY: Modified-site
2111 (B) LOCATION: 1
2112 (D) OTHER INFORMATION: /note= "Met- may or may not precede
2113 the amino acid in position 1"
2114
2115 (ix) FEATURE:
2116 (A) NAME/KEY: Modified-site
2117 (B) LOCATION: 17
2118 (D) OTHER INFORMATION: /note= "Xaa at position 17 is Ser,
2119 Gly, Asp, or Gln"
2120
2121 (ix) FEATURE:
2122 (A) NAME/KEY: Modified site
2123 (B) LOCATION: 18
2124 (D) OTHER INFORMATION: /note= "Xaa at position 18 is Asn,
2125 His, or Ile"
2126

P
P

RAW SEQUENCE LISTING
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2127 (ix) FEATURE:
2128 (A) NAME/KEY: Modified-site
2129 (B) LOCATION: 23
2130 (D) OTHER INFORMATION: /note= "Xaa at position 23 is Ile,
2131 Ala, Leu, or Gly"
2132
2133 (ix) FEATURE:
2134 (A) NAME/KEY: Modified-site
2135 (B) LOCATION: 25
2136 (D) OTHER INFORMATION: /note= "Xaa at position 25 is Thr,
2137 His, or Gln"
2138
2139 (ix) FEATURE:
2140 (A) NAME/KEY: Modified-site
2141 (B) LOCATION: 26
2142 (D) OTHER INFORMATION: /note= "Xaa at position 26 is His
2143 or Ala"
2144
2145 (ix) FEATURE:
2146 (A) NAME/KEY: Modified-site
2147 (B) LOCATION: 29
2148 (D) OTHER INFORMATION: /note= "Xaa at position 29 is Gln
2149 or Asn"
2150
2151 (ix) FEATURE:
2152 (A) NAME/KEY: Modified-site
2153 (B) LOCATION: 30
2154 (D) OTHER INFORMATION: /note= "Xaa at position 30 is Pro
2155 or Gly"
2156
2157 (ix) FEATURE:
2158 (A) NAME/KEY: Modified-site
2159 (B) LOCATION: 32
2160 (D) OTHER INFORMATION: /note= "Xaa at position 32 is Leu,
2161 Arg, Asn, or Ala"
2162
2163 (ix) FEATURE:
2164 (A) NAME/KEY: Modified-site
2165 (B) LOCATION: 34
2166 (D) OTHER INFORMATION: /note= "Xaa at position 34 is Leu,
2167 Val, Ser, Ala, Arg, Gln, Glu, Ile, Phe, Thr, or Met"
2168
2169 (ix) FEATURE:
2170 (A) NAME/KEY: Modified-site
2171 (B) LOCATION: 35
2172 (D) OTHER INFORMATION: /note= "Xaa at position 35 is Leu,
2173 Ala, Asn, or Pro"
2174
2175 (ix) FEATURE:
2176 (A) NAME/KEY: Modified-site
2177 (B) LOCATION: 38
2178 (D) OTHER INFORMATION: /note= "Xaa at position 38 is Asn
2179 or Ala"

**RAW SEQUENCE LISTING
PATENT APPLICATION US/10/090,182**DATE: 03/27/2002
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2180
2181 (ix) FEATURE:
2182 (A) NAME/KEY: Modified-site
2183 (B) LOCATION: 42
2184 (D) OTHER INFORMATION: /note= "Xaa at position 42 is Gly,
2185 Asp, Ser, Ala, Asn, Ile, Leu, Met, Tyr, or Arg"
2186
2187 (ix) FEATURE:
2188 (A) NAME/KEY: Modified-site
2189 (B) LOCATION: 45
2190 (D) OTHER INFORMATION: /note= "Xaa at position 45 is Gln,
2191 Val, Met, Leu, Ala, Asn, Glu, or Lys"
2192
2193 (ix) FEATURE:
2194 (A) NAME/KEY: Modified-site
2195 (B) LOCATION: 46
2196 (D) OTHER INFORMATION: /note= "Xaa at position 46 is Asp,
2197 Phe, Ser, Gln, Glu, His, Val, or Thr"
2198
2199 (ix) FEATURE:
2200 (A) NAME/KEY: Modified-site
2201 (B) LOCATION: 50
2202 (D) OTHER INFORMATION: /note= "Xaa at position 50 is Glu,
2203 Asn, Ser, or Asp"
2204
2205 (ix) FEATURE:
2206 (A) NAME/KEY: Modified-site
2207 (B) LOCATION: 51
2208 (D) OTHER INFORMATION: /note= "Xaa at position 51 is Asn,
2209 Arg, Pro, Thr, or His"
2210
2211 (ix) FEATURE:
2212 (A) NAME/KEY: Modified-site
2213 (B) LOCATION: 55
2214 (D) OTHER INFORMATION: /note= "Xaa at position 55 is Arg,
2215 Leu, or Gly"
2216
2217 (ix) FEATURE:
2218 (A) NAME/KEY: Modified-site
2219 (B) LOCATION: 56
2220 (D) OTHER INFORMATION: /note= "Xaa at position 56 is Pro,
2221 Gly, Ser, Ala, Asn, Val, Leu, or Gln"
2222
2223 (ix) FEATURE:
2224 (A) NAME/KEY: Modified-site
2225 (B) LOCATION: 62
2226 (D) OTHER INFORMATION: /note= "Xaa at position 62 is Asn
2227 Pro, or Thr"
2228
2229 (ix) FEATURE:
2230 (A) NAME/KEY: Modified-site
2231 (B) LOCATION: 64
2232 (D) OTHER INFORMATION: /note= "Xaa at position 64 is Ala

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PATENT APPLICATION US/10/090,182**

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INPUT SET: S36813.raw

2233 or Asn"

2234

2235 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 65
(D) OTHER INFORMATION: /note= "Xaa at position 65 is Val
2239 or Thr"

2240

2241 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 67
(D) OTHER INFORMATION: /note= "Xaa at position 67 is Ser
2245 or Phe"

2246

2247 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 68
(D) OTHER INFORMATION: /note= "Xaa at position 68 is Leu
2251 or Phe"

2252

2253 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 69
(D) OTHER INFORMATION: /note= "Xaa at position 69 is Gln,
2257 Ala, Glu, or Arg"

2258

2259 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 76
(D) OTHER INFORMATION: /note= "Xaa at position 76 is Ser,
2263 Val, Asn, Pro, or Gly"

2264

2265 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 77
(D) OTHER INFORMATION: /note= "Xaa at position 77 is Ile
2269 or Leu"

2270

2271 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 79
(D) OTHER INFORMATION: /note= "Xaa at position 79 is Lys,
2275 Asn, Met, Arg, Ile, or Gly"

2276

2277 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 80
(D) OTHER INFORMATION: /note= "Xaa at position 80 is Asn,
2281 Gly, Glu, or Arg"

2282

2283 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 82

**RAW SEQUENCE LISTING
PATENT APPLICATION US/10/090,182**DATE: 03/27/2002
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2286 (D) OTHER INFORMATION: /note= "Xaa at position 82 is Leu,
2287 Gln, Trp, Arg, Asp, Asn, Glu, His, Met, Phe, Ser,
2288 Thr, Tyr, or Val"
2289
2290 (ix) FEATURE:
2291 (A) NAME/KEY: Modified-site
2292 (B) LOCATION: 87
2293 (D) OTHER INFORMATION: /note= "Xaa at position 87 is Leu
2294 or Ser"
2295
2296 (ix) FEATURE:
2297 (A) NAME/KEY: Modified-site
2298 (B) LOCATION: 88
2299 (D) OTHER INFORMATION: /note= "Xaa at position 88 is Ala
2300 or Trp"
2301
2302 (ix) FEATURE:
2303 (A) NAME/KEY: Modified-site
2304 (B) LOCATION: 91
2305 (D) OTHER INFORMATION: /note= "Xaa at position 91 is Ala
2306 or Pro"
2307
2308 (ix) FEATURE:
2309 (A) NAME/KEY: Modified-site
2310 (B) LOCATION: 93
2311 (D) OTHER INFORMATION: /note= "Xaa at position 93 is Thr,
2312 Asp, or Ala"
2313
2314 (ix) FEATURE:
2315 (A) NAME/KEY: Modified-site
2316 (B) LOCATION: 95
2317 (D) OTHER INFORMATION: /note= "Xaa at position 95 is His,
2318 Pro, Arg, Val, Gly, Asn, Ser, or Thr"
2319
2320 (ix) FEATURE:
2321 (A) NAME/KEY: Modified-site
2322 (B) LOCATION: 98
2323 (D) OTHER INFORMATION: /note= "Xaa at position 98 is His,
2324 Ile, Asn, Ala, Thr, Arg, Gln, Glu, Lys, Met, Ser,
2325 Tyr, Val, or Leu"
2326
2327 (ix) FEATURE:
2328 (A) NAME/KEY: Modified-site
2329 (B) LOCATION: 99
2330 (D) OTHER INFORMATION: /note= "Xaa at position 99 is Ile
2331 or Leu"
2332
2333 (ix) FEATURE:
2334 (A) NAME/KEY: Modified site
2335 (B) LOCATION: 100
2336 (D) OTHER INFORMATION: /note= "Xaa at position 100 is Lys
2337 or Arg"
2338

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PATENT APPLICATION US/10/090,182DATE: 03/27/2002
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--> 2339 (ix) FEATURE: (use a colon after an heading) INPUT SET: S36813.raw

2340 (A) NAME/KEY: Modified-site

2341 (B) LOCATION: 101

2342 (D) OTHER INFORMATION: /note= "Xaa at position 101 is Asp,
2343 Pro, Met, Lys, Thr, His, Pro, Asn, Ile, Leu, or Tyr"

2344

2345 (ix) FEATURE:

2346 (A) NAME/KEY: Modified-site

2347 (B) LOCATION: 105

2348 (D) OTHER INFORMATION: /note= "Xaa at position 105 is Asn,
2349 Pro, Ser, Ile, or Asp"

2350

2351 (ix) FEATURE:

2352 (A) NAME/KEY: Modified-site

2353 (B) LOCATION: 108

2354 (D) OTHER INFORMATION: /note= "Xaa at position 108 is Arg, Ala,
2355 or Ser"

2356 (ix) FEATURE:

2357 (A) NAME/KEY: Modified-site

2358 (B) LOCATION: 109

2359 (D) OTHER INFORMATION: /note= "Xaa at position 109 is Arg,
2360 Thr, Glu, Leu, or Ser"

2361

2362 (ix) FEATURE:

2363 (A) NAME/KEY: Modified-site

2364 (B) LOCATION: 112

2365 (D) OTHER INFORMATION: /note= "Xaa at position 112 is Thr
2366 or Gln"

2367

2368 (ix) FEATURE:

2369 (A) NAME/KEY: Modified-site

2370 (B) LOCATION: 116

2371 (D) OTHER INFORMATION: /note= "Xaa at position 116 is Lys,
2372 Val, Trp, Ala, His, Phe, Tyr, or Ile"

2373

2374 (ix) FEATURE:

2375 (A) NAME/KEY: Modified-site

2376 (B) LOCATION: 117

2377 (D) OTHER INFORMATION: /note= "Xaa at position 117 is Thr
2378 or Ser"

2379

2380 (ix) FEATURE:

2381 (A) NAME/KEY: Modified-site

2382 (B) LOCATION: 120

2383 (D) OTHER INFORMATION: /note= "Xaa at position 120 is Asn,
2384 Pro, Leu, His, Val, or Gln"

2385

2386 (ix) FEATURE:

2387 (A) NAME/KEY: Modified-site

2388 (B) LOCATION: 121

2389 (D) OTHER INFORMATION: /note= "Xaa at position 121 is Ala,
2390 Ser, Ile, Pro, or Asp" *delete*

2391 (ix) FEATURE:

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PATENT APPLICATION US/10/090,182DATE: 03/27/2002
TIME: 02:56:30

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2392 (A) NAME/KEY: Modified-site
 2393 (B) LOCATION: 122
 2394 (D) OTHER INFORMATION: /note= "Xaa at position 122 is Gln,
 2395 Met, Trp, Phe, Pro, His, Ile, or Tyr"
 2396
 2397 (ix) FEATURE:
 2398 (A) NAME/KEY: Modified-site
 2399 (B) LOCATION: 123
 2400 (D) OTHER INFORMATION: /note= "Xaa at position 123 is Ala,
 2401 Met, Glu, Ser, or Leu"
 2402
 2403
 2404 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:
 2405
 2406 Ala Pro Met Thr Gln Thr Thr Ser Leu Lys Thr Ser Trp Val Asn Cys
 2407 1 5 10 15
 2408
 2409 Xaa Xaa Met Ile Asp Glu Xaa Ile Xaa Xaa Leu Lys Xaa Xaa Pro Xaa
 2410 20 25 30
 2411
 2412 Pro Xaa Xaa Asp Phe Xaa Asn Leu Asn Xaa Glu Asp Xaa Xaa Ile Leu
 2413 35 40 45
 2414
 2415 Met Xaa Xaa Asn Leu Arg Xaa Xaa Asn Leu Glu Ala Phe Xaa Arg Xaa
 2416 50 55 60
 2417
 2418 Xaa Lys Xaa Xaa Xaa Asn Ala Ser Ala Ile Glu Xaa Xaa Leu Xaa Xaa
 2419 65 70 75 80
 2420
 2421 Leu Xaa Pro Cys Leu Pro Xaa Xaa Thr Ala Xaa Pro Xaa Arg Xaa Pro
 2422 85 90 95
 2423
 2424 Ile Xaa Xaa Xaa Xaa Gly Asp Trp Xaa Glu Phe Xaa Xaa Lys Leu Xaa
 2425 100 105 110
 2426
 2427 Phe Tyr Leu Xaa Xaa Leu Glu Xaa Xaa Xaa Gln Gln Thr Thr Leu
 2428 115 120 125
 2429
 2430 Ser Leu Ala Ile Phe
 2431 130
 2432

13546 (2) INFORMATION FOR SEQ ID NO:366:

13547
 13548 (i) SEQUENCE CHARACTERISTICS:
 --> 13549 (A) LENGTH: 339 base pairs
 13550 (B) TYPE: nucleic acid
 13551 (C) STRANDEDNESS: double
 13552 (D) TOPOLOGY: linear
 13553
 13554 (ii) MOLECULE TYPE: DNA (genomic)
 13555
 13556

) 346 (1,9)

**RAW SEQUENCE LISTING
PATENT APPLICATION US/10/090,182**DATE: 03/27/2002
TIME: 02:56:30**INPUT SET: S36813.raw**

13557
13558 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:366:
13559
13560 ATGGCTTAAT GCTCTATAAT GATCGATGAA ATTATACATC ACTTAAAGAG ACCACCTGCA 60
13561
--> 13562 CCTTCCCTGG ACCCGAACAA CCTCAATGCT GAAGACGTCG ATATCCTGAT GGAACGAAAC C (120) /21
13563
13564 CTTCGACTTC CAAACCTGGA GAGCTTCGTA AGGGCTGTCA AGAACTTAGA AAATGCATCA (180) 1/CS.
13565
13566 GGTATTGAGG CAATTCTTCG TAATCTCCAA CCATGTCTGC CCTCTGCCAC GGCCGCACCC (240) off
13567
13568 TCTCGACATC CAATCATCAT CAAGGCAGGT GACTGGCAAG AATTCCGGGA AAAACTGACG (300) /
13569
13570 TTCTATCTGG TTACCCTTGA GCAAGCGCAG GAACAACAG (339) /
13571

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/10/090,182

DATE: 03/27/2002
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INPUT SET: S36813.raw

Line	Error	Original Text
2339	Unknown or Misplaced Identifier	(ix) FEATURE;
13549	Entered (339) and Calc. Seq. Length (340) differ	(A) LENGTH: 339 base pairs
13562	# of Sequences for line conflicts w/ running total	CCTTCCCTGG ACCCGAACAA CCTCAATGCT GAAGA